

REMARKS

The Official Action dated October 10, 2003, has been carefully considered. Accordingly, the changes presented herewith, taken with the following remarks, are believed sufficient to place the present application in condition for allowance. Reconsideration and allowance of all remaining claims is respectfully requested.

Claims 2-3, 5-6, 8, 10-12 and 14 have been amended, support for the amendments being found in the specification as filed. It is believed that these changes and additions do not involve any introduction of new matter, whereby entry is believed to be in order and is respectfully requested. Claims 2-21 remain in the application for consideration.

In the Official Action, the Examiner noted that the references were not provided with the Information Disclosure Statement and PTO-1449 form filed on August 20, 2003. Applicant now submits copies of the references included with that Information Disclosure Statement, and, in addition, has provided another copy of the PTO-1449 form for the Examiner's convenience. In view of this submission, Applicant respectfully requests that the Examiner consider the references and make them of record in the present application.

In addition, the Examiner also objected to claims 3-13 for being dependent upon canceled claim 1 in the Official Action. In view of the amendments to the claims, Applicant believes these amendments have overcome the objection to claims 3-13, as such, Applicant respectfully requests the Examiner to reconsider his objection to claims 3-13.

Claims 2 and 14-21 were rejected under 35 U.S.C. § 102(b) as being anticipated by the Ward U.S. Patent No. 5,857,413 (hereinafter referred to as "Ward"). The Examiner asserted that Ward discloses an automated stowage and retrieval system and a method of operating. The Examiner noted that Ward discloses a plurality of rectangular motorized pallets contained in a matrix. Moreover, the Examiner alleged that Ward teaches that each

pallet includes rollers/wheels and a driving mechanism for bi-directional horizontal movement between pluralities of zones within a matrix. In addition, the Examiner stated that Ward teaches the matrix having at least one vacant zone adapted to the size of the pallet. Furthermore, the Examiner asserted that Ward teaches a system including a programmable controller which receives input concerning a desired load and is configured to communicate with the plurality of driving mechanisms on the pallets to move a number of pre-selected pallets with the desired load to a predetermined location.

However, as will be set forth in detail below, it is submitted that the stowage and retrieval systems and methods defined by claims 2 and 14-21 are not anticipated by and are patentably distinguishable from Ward. Accordingly, this rejection is traversed and reconsideration is respectfully requested.

The stowage and retrieval systems as defined by claim 2, on which claims 3-13 depend, include automated stowage and retrieval systems for the selective loading or unloading of a payload. The system includes a plurality of pallet carriers contained in a matrix, a plurality of driving mechanisms associated with the plurality of pallet carriers and a programmable controller. The matrix is defined by a plurality of horizontal axes, including a plurality of axes extending in a first direction and a plurality of axes extending in a second direction generally perpendicular to the first direction. The plurality of pallet carriers are each capable of supporting at least one payload and configured to slide bi-directionally along the plurality of horizontal axes in a sequentially coordinated movement with other of the plurality of pallet carriers. The plurality of driving mechanisms are configured to slide each of the plurality of pallet carriers along the plurality of horizontal axes of the matrix. The programmable controller is capable of receiving input regarding a desired payload and configured to communicate with the plurality of driving mechanisms to operably coordinate

sequential movement of a selected number of the plurality of pallet carriers along the plurality of horizontal axes to move a predetermined pallet carrier having the desired payload to a predetermined position.

The methods of stowing and retrieving a payload as defined by claim 14, on which claims 15-21 depend, include positioning a first pallet carrier at a predetermined position in a matrix to load or unload at least one payload associated with the first pallet carrier and sliding a selected number of a plurality of pallet carriers in coordinated sequential movement to move a second pallet carrier to the predetermined position to load or unload at least one payload associated with the second pallet carrier. The matrix is defined by a plurality of horizontal axes, including a plurality of axes extending in a first direction and a plurality of axes extending in a second direction generally perpendicular to the first direction. The matrix includes a plurality of pallet carriers configured to slide bi-directionally along the plurality of horizontal axes in sequentially coordinated movement with other of the plurality of pallet carriers.

In contrast, Ward discloses a powered pallet for use in two intersecting trackways (abstract). Ward teaches that the assembly includes a first plurality of load-supporting wheels rotatably mounted to frame for movement of the pallet assembly in a first direction on the first trackway (abstract). Moreover, the assembly disclosed by Ward includes a second plurality of load-supporting wheels rotatably mounted to the frame for movement of the pallet assembly in a second direction intersecting the first direction on the second trackway intersecting the first trackway (abstract). Ward further discloses that the first wheels can be disengaged from the second trackway when the patent is supported for movement on the second trackway by second wheels, and the second wheels can be disengaged from the first trackway when the pallet is supported for movement on the first trackway, by the first wheels

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(abstract). Ward also teaches a system to prevent each pallet assembly from bumping into each other, specially in the case where a plurality of pallets are simultaneously or sequentially moving in the same trackway grid (col. 11, lines 7-10). Furthermore, Ward discloses having walls or islands included in the trackway system (FIGS. 1 and 9).

Rejection for anticipation or lack of novelty requires, as the first step in the query, that all elements of the claimed invention be described in single reference. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989), *cert. denied*, 493 U.S.P.Q.853 (1989). Applicant is unable to find any teaching or disclosure by Ward of stowage and retrieval systems or methods as defined by the present claims. To anticipate, every element and limitations of the claimed invention must be found in a single prior art reference, arranged as in the claim. *Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1383, 58 U.S.P.Q.2d 1286, 1291 (Fed. Cir. 2001); *Scripps Clinic & Research Foundation v. Genentech, Inc.*, 927 F.2d 1565, 1576, 18 U.S.P.Q.2d 1001, 1010 (Fed. Cir. 1991). Applicant finds no teaching or disclosure in Ward of any such stowage and retrieval system or method where the plurality of pallet carriers are contained in a matrix having a plurality of horizontal axes, where each of the plurality of pallet carriers slides along the plurality of horizontal axes in sequentially coordinated movement with other of the plurality of pallet carriers. The teachings in Ward are directed to the movement of an individual pallet along a trackway (see Fig. 9) and the ability of the pallets to move between trackways, but fails to disclose any sequentially coordinated movement of the pallets in the system as they independently move along the trackways. In view of the deficiencies of Ward to teach the stowage and retrieval systems and methods as set forth in claims 2 and 14-21, the presently claimed invention is not taught or disclosed by Ward.

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It is therefore submitted that the stowage and retrieval systems and methods as defined by claims 2 and 14-21 are not anticipated by and are patentably distinguishable from Ward and the rejection of claims 2 and 14-21 under 35 U.S.C. § 102 has been overcome. Reconsideration is respectfully requested.

Claims 2 and 14-21 were rejected under 35 U.S.C. § 102(b) as being anticipated by the Day, III et al U.S. Patent No. 5,395,199 (hereinafter referred to as “Day, III”). The Examiner asserted that Day, III et al disclose an automated stowage and retrieval system and a method of operating. The Examiner noted that Day, III et al disclose a plurality of rectangular motorized pallets contained in a matrix. Moreover, the Examiner alleged that Day, III et al teach that each pallet includes rollers/wheels and a driving mechanism for bi-directional horizontal movement between pluralities of zones within a matrix. In addition, the Examiner stated that Day, III et al teach the matrix having at least one vacant zone adapted to the size of the pallet. Furthermore, the Examiner asserted that Day, III et al teach a system including a programmable controller which receives input concerning a desired load and is configured to communicate with the plurality of driving mechanisms on the pallets to move a number of pre-selected pallets with the desired load to a predetermined location.

However, as will be set forth in detail below, it is submitted that the stowage and retrieval systems and methods defined by claims 2 and 14-21 are not anticipated by and are patentably distinguishable from Day, III et al. Accordingly, this rejection is traversed and reconsideration is respectfully requested.

The systems and methods of the invention are discussed above. Applicant finds no teaching by Day, III et al of the stowage and retrieval systems or methods as defined by claims 2 and 14-21. That is, Day, III et al disclose an automated storage library including one or more robotic accessors which move on the surface of a horizontal plane which include

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openings to storage cells (abstract). Moreover, Day, III et al teach the accessors are wireless, remotely controlled vehicles (abstract). In addition, Day, III et al disclose vehicles which employ known tracking mechanisms to move between locations within the library (abstract). Furthermore, Day, III et al also teach that the horizontal plane is a floor which is formed by the surface of the storage cells (abstract).

Thus, the teachings of Day, III et al do not render the limitations of claims 2 and 14-21 anticipated. To anticipate, every element and limitations of the claimed invention must be found in a single prior art reference, arranged as in the claim. *Karsten Mfg. Corp. v. Cleveland Golf Co.*, *supra*; *Scripps Clinic & Research Foundation v. Genentech, Inc.*, *supra*. Once again, Applicant finds no teaching or disclosure in Day, III et al of any such stowage or retrieval systems or methods having a plurality of pallet carriers contained in a matrix, which are configured to slide bi-directionally along a plurality of horizontal axes in sequentially coordinated movement with other of the plurality of pallet carriers. In fact, the Day, III et al reference teaches that the vehicles within the storage library move along one axis in the horizontal plane (see Fig. 1), and provides no suggestion that the vehicles move in a sequentially coordinated movement with other of the vehicles on the floor. As such, the stowage and retrieval systems and methods in the present application are not taught or disclosed by Day, III et al.

It is therefore submitted that the stowage and retrieval systems and methods as defined by claims 2 and 14-21 are not anticipated by and are patentably distinguishable from Day, III et al and the rejection of claims 2 and 14-21 under 35 U.S.C. § 102 has been overcome. Reconsideration is respectfully requested.

It is believed that the above amendments and remarks represent a complete response to the Examiner's objections and rejections under 35 U.S.C. §§ 102, and as such, place the

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present application having claims 2-21 in condition for allowance. Reconsideration and an early allowance are requested.

Respectfully submitted,

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